AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A catalyst for asymmetrical ~~transfer hydrogenation~~ hydrogen transfer comprising a transition metal compound and a nitrogen-containing enantiomerically enriched ligand, wherein the transition metal is iridium, ruthenium, rhodium or cobalt and the enantiomerically enriched ligand contains sulphur in the form of a thioether or a sulphoxide, the sulphur being bound to the nitrogen via two or more carbon atoms.

2. (Previously Presented) The catalyst according to claim 1, wherein the transition metal is iridium.

3. (Previously Presented) The catalyst according to claim 1 wherein the sulphur is bound to the nitrogen via two carbon atoms.

4. (Previously Presented) The catalyst according to claim 1 wherein of the two or more carbon atoms that bind the sulphur to the nitrogen at least the carbon bound to the sulphur is chiral.

5. (Previously Presented) The catalyst according to claim 1 wherein the enantiomerically enriched ligand has two or more chiral centers.

6. (Previously Presented) The catalyst according to claim 5, wherein the enantiomerically enriched ligand is a sulphoxide, and wherein one of the two or more chiral centers is the sulphur of the sulphoxide.

7. (Previously Presented) The catalyst according to claim 5, wherein the enantiomerically enriched ligand is a thioether in which the carbon atoms to which the thioether and the amino group are bound are both chiral.

8. (Previously Presented) The catalyst according to claim 5 wherein the enantiomerically enriched ligand is a single diastereomer form.

9. (Previously Presented) The catalyst according to claim 1 wherein the sulphur is substituted with a substituted or non-substituted (hetero)aryl, (hetero)aralkyl, or alkyl group.

10. (Previously Presented) The catalyst according to claim 1 wherein the enantiomerically enriched ligand is derived from enantiomerically enriched cysteine.

11. (Previously Presented) The catalyst according to claim 1 wherein the enantiomerically enriched ligand is derived by reaction of an enantiomerically enriched aziridine converted with a thiol compound.

12. (Previously Presented) A process for the preparation of a catalyst according to claim 1 comprising

adding a nitrogen-containing enantiomerically enriched ligand which contains sulphur in the form of a thioether or a sulphoxide, the sulphur being bound to the nitrogen via two or more carbon atoms to a catalyst precursor, which contains the transition metal, an anion and a spectator ligand that is difficult to exchange.

13. (Previously Presented) A process for the preparation of an enantiomerically enriched compound from a corresponding prochiral compound comprising hydrogenating the prochiral compound by catalytic asymmetrical transfer hydrogenation in the presence of the catalyst of claim 1 and a hydrogen donor.

14. (Previously Presented) The process according to claim 13, wherein the prochiral compound is a prochiral ketone, imine, oxime or hydrazone.

15. (Previously Presented) A process for the kinetic resolution of a chiral, racemic ketone, aldehyde, imine, oxime or hydrazone, comprising

stereoselectively reducing one enantiomer of the chiral, racemic ketone, aldehyde, imine, oxime or hydrazone in the presence of a catalyst according to claim 1.

16. (Previously Presented) A process for the preparation of an enantiomerically enriched compound with two or more chiral centers comprising

diastereomerically reducing a chiral, non racemic ketone, imine, oxime or hydrazone in the presence of a catalyst according to claim 1.

17. (Previously Presented) A process for the kinetic resolution of a racemic alcohol comprising

preferentially oxidizing of one of the enantiomers of the alcohol in the presence of the catalyst according to claim 1.

18. (Previously Presented) A process for the preparation of a hydroxy ketone in an enantiomeric excess comprising

oxidizing a *meso* diol in the presence of the catalyst according to claim 1.

19. (Previously Presented) A process for the preparation of a ketone and/or an alcohol in an enantiomeric excess comprising

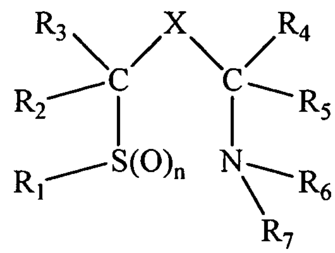
oxidizing a corresponding racemic alcohol that contains a further chiral centre, which is not directly bound to the OH group, in the presence of the catalyst according to claim 1.

20. (Previously Presented) The process for the preparation of an enantiomerically enriched compound according to claim 13, wherein isopropanol is the hydrogen donor.

21. (Previously Presented) The process for the preparation of an enantiomerically enriched compound according to claim 13, wherein formic acid or a formic acid salt is the hydrogen donor.

22. (Previously Presented) The process for the preparation of an enantiomerically enriched compound according to claim 21, wherein the prochiral compound is in an amount of at least 0.2 mol per litre of the hydrogen donor.

23. (New) The catalyst of claim 1 having the formula



wherein n is 0 or 1;

wherein each of R_1, R_2, R_3, R_4, R_5, R_6 and R_7 is a substituent, wherein two of said substituents may form a ring;

wherein R_1 is not H;

wherein X represents a bond between each adjacent C or spaces each C with a carbon- or heteroatom-containing moiety; and

wherein at least one chiral center is present.

24. (New) The catalyst in claim 23

wherein each of R_2, R_3, R_4, R_5, R_6 and R_7 is independently optionally substituted H, alkyl, aryl, aralkyl, alkenyl or alkynyl optionally containing one or more heteroatoms.

25. (New) The catalyst in claim 24

wherein X is a bond.

26. (New) The catalyst in claim 25

wherein one or both of R_6 and R_7 are H;

wherein R_1 is optionally substituted alkyl, aryl or aralkyl optionally containing one or more heteroatoms.

27. (New) The process of claim 12

wherein the catalyst precursor has the formula

$$M_nX_pS_qL_r$$

wherein n is an integer of 1 or greater;

wherein p, q and r is each independently 0 or an integer of 1 or greater;

wherein M is a transition metal;

wherein X is hydride, halide, carboxylate, alkoxy, hydroxy or tetrafluoroborate;
wherein S is an aromatic compound, an olefin or a diene; and
wherein L is a nitrile or a coordinating solvent.

28. (New) The process of claim 27
wherein M is ruthenium, iridium, rhodium or cobalt;
wherein S is selected from the group consisting of benzene, toluene, xylene, cumene, cymene, naphthalene, anisole, chlorobenzene, indene, dihydroindene, tetrahydronaphthalene, cholic acid, benzoic acid, phenylglycine, norbornadiene, 1,5-cycloctadiene and 1,5-hexadiene; and
wherein L is selected from the group consisting of acetonitrile, dimethylsulphoxide (DMSO), methanol, water, tetrahydrofuran, dimethylformamide, pyridine and N-methylpyrrolidinone.

29. (New) The process of claim 28
wherein M is iridium.